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EXAMINER

PADMANABHAN, KAVITA

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/767,040
Filing Date: January 29, 2004
Appellant(s): RATH ET AL.

Randol W. Read
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 8/1/07 appealing from the Office action mailed 3/1/07.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

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The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

2002/0123993	Chau et al.	9-2002
2005/0065817	Mihai et al.	3-2005

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1-5 and 7-20** are rejected under 35 U.S.C. 102(b) as being anticipated by **Chau et al.** (US 2002/0123993, hereinafter “Chau”).

In regards to **claim 1**, **Chau** teaches a method for managing structured data having one or more repeating fields, comprising:

- receiving a hierarchical data structure containing the structured data (**Chau; par [0042]** – ***“the hierarchical structure of an XML document”*** – XML documents are hierarchical; Fig. 11, reference character 1100 – ***“Receive an XML document containing XML data”***) wherein the structured data is annotation data related to an

- annotated data object (Chau; par [0044]; par [0051] – par [0052]; par [0195] – XML document is interpreted to be an annotated data object and the data contained therein is interpreted to be annotation data in that it is related to the XML documents; appellant's specification at par [0021] states broadly, *"The term annotation data (or simply annotation) generally refers to any type of descriptive information associated with one or more data objects. Annotations may exist in various forms, including any combination of textual annotations (descriptions, revisions, clarifications, comments, instructions, etc.), graphical annotations (pictures, symbols, etc.), sound clips, etc."*) and wherein at least two instances of a repeating field are contained in the structured data (Chau; par [0150]; par [0171]; par [0177]; par [0886], lines 17-18 – multiple occurrence);
- parsing the structured data to identify the repeating fields (Chau; par [0884] – *"the XML system parses the XML document to generate an XML Document Object Model (DOM) tree"; "the XML System maps data from the XML DOM tree to columns in relational tables according to the DAD DOM tree."* – parses xml document and maps to tables);
 - generating an ordinal value for each instance of the repeating fields, each ordinal value indicating an order in which a corresponding instance of a repeating field occurs in the hierarchical data structure as received (Chau; par [0150]; par [0171]; par [0177]; par [0886], lines 17-18 – *"This DXX_SEQNO keeps track of the order of elements occurred for the path expression in each inserted XML documents. With DXX_SEQNO, the user can retrieve a list of the elements with the same order as the original XML document using "ORDER BY DXX_SEQNO" in SQL"*); and

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- storing the structured data and ordinal values in one or more relational tables (**Chau; par [0085]; par [0881]** – *“Compose or decompose contents of XML documents from/into an XML collection which consists of one or more relational tables.”*).

In regards to **claim 2**, **Chau** teaches the method of claim 1, wherein storing the structured data and ordinal values in one or more relational tables comprises storing instance data from a repeating field in a common relational table (**Chau; par [0142]; par [0150]; par [0168]; par [0171]; par [0174]; par [0177]**).

In regards to **claim 3**, **Chau** teaches the method of claim 2, wherein the common relational table has at least a column for the instance data, a column for corresponding ordinal values, and a column for a key value to identify a data structure associated with the repeating field (**Chau; par [0142]; par [0150]; par [0168]; par [0169]; par [0171]; par [0174]; par [0177]; par [0224];**).

Claims 4-5 are rejected with the same rationale given for claim 1, wherein the repeating group of one or more fields consists of one field, as is required by claim 4, and the group thereby contains that one repeating field, as is required by claim 5.

In regards to **claim 7**, **Chau** teaches the method of claim 1, wherein the structured data is received as input via an interface generated based on a template structure defined by one or more fields or groups of fields (**Chau; par [0044]; par [0051] – par [0052]; par [0132]; par [0134]**).

In regards to **claim 8**, **Chau** teaches the method of claim 7, wherein:

- the template structure is selected based, at least in part, on the annotated data object **(Chau; par [0044]; par [0051] – par [0052]; the interface, which must be based on an underlying template/code, is selected/used at least in part based on the input data being XML).**

In regards to **claim 9**, **Chau** teaches the method of claim 1, further comprising:

- receiving a request for the structured data **(Chau; par [0051] – par [0052]; par [0702]; par [0939]);**
- retrieving the structured data and ordinal values from the one or more relational tables **(Chau; par [0884]; par [0939]);**
- assembling the structured data in a hierarchical data structure based on the hierarchical data structure in which it was received, with a position of instance values of repeated fields within the hierarchical data structure determined by corresponding ordinal values **(Chau; par [0150]; par [0171]; par [0177]; par [0886], lines 17-18; par [0939]);** and
- returning the assembled hierarchical data structure **(Chau; par [0051] – par [0052]; par [0702]; par [0939]).**

Claims 10, 11, 12, 13, and 14 are rejected with the same rationale given for claims 1, 2, 3, 4, and 9, respectively.

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Claims 15, 16, 17, 18, 19, and 20 are rejected with the same rationale given for claims 7, 2, 3, 4, 9, and 8, respectively.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Appellant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. **Claim 6** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Chau in view of Mihai et al.** (US 2005/0065817, hereinafter "Mihai").

In regards to **claim 6**, **Chau** teaches the method of claim 1.

Chau does not expressly teach receiving the structured data in a hierarchical format as a Simple Object Access Protocol (SOAP) message.

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Mihai teaches SOAP as a messaging protocol for encoding XML to be sent or received over a network or communication path (**Mihai; par [0118] – par [0119]**).

It would have been obvious to one of ordinary skill in the art at the time of the appellant's invention to implement the method of Chau using the SOAP messaging protocol to send XML data so that the data can be received by a web services type of software interface (**Mihai; par [0118] – par [0119]**).

(10) Response to Argument

1. Chau Does not Anticipate Claims 1-5 or 7-20 under 35 USC § 102(b)

Regarding Claims 1, 10, and 15:

Appellant argues that Chau does not teach a method for managing structured data having one or more repeating fields that includes a step of receiving a hierarchical data structure containing the structured data wherein the structured data is annotation data related to an annotated data object and wherein at least two instances of a repeating field are contained in the structured data.

The examiner respectfully disagrees and refers the appellant to the stated rejection above. To clarify, the examiner asserts that Chau teaches receiving a hierarchical data structure (Chau; par [0042] – “*the hierarchical structure of an XML document*” – XML documents are hierarchical; Fig. 11, reference character 1100 – “*Receive an XML document containing XML data*”) containing annotation data related to an annotated data object (Chau; par [0044]; par [0051] – par [0052]; par [0195] – the XML document is interpreted to be an annotated data object and the actually data contained within the XML document is interpreted to be annotation

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data in that it is related to the XML documents; Furthermore, the XML document contains a `comment_node` which clearly constitutes annotation data about an object, which is thereby an annotated data object) and wherein at least two instances of a repeating field are contained in the structured data (Chau; par [0150]; par [0171]; par [0177]; par [0886], lines 17-18 – multiple occurrence fields).

The appellant goes on to argue that an XML document does not constitute both a hierarchical data structure and an annotated data object, since these are two independent elements recited by the claims.

The examiner respectfully disagrees with the appellant's argument. The examiner first notes that just because two elements are recited independently in the claim, that does not preclude a single element in an applied reference from teaching both the claimed elements. In this present application, an XML document is undoubtedly a hierarchical data structure (Chau; par [0042] – “*the hierarchical structure of an XML document*”) and is also an annotated data object. The examiner notes that the appellant's specification at par [0021] states broadly, “The term annotation data (or simply annotation) generally refers to any type of *descriptive information associated with one or more data objects*. Annotations may exist in various forms, including any combination of textual annotations (*descriptions*, revisions, clarifications, *comments*, instructions, etc.), graphical annotations (pictures, symbols, etc.), sound clips, etc.”. The examiner asserts that an XML document clearly fits within the broadest reasonable interpretation of an annotated data object in that it clearly contains annotation data in accordance with the appellant's specification, namely descriptive information associated with the XML data object, including textual annotations (for example, the `comment` field – Chau, par [0195]).

Regarding Claims 4 and 5:

The appellant argues that claim 4 includes both a field ordinal and a group ordinal for each repeating field and group, respectively, and that Chau does not teach a group ordinal number applied to instances of a repeating group in addition to a field ordinal applied to instances of a repeating field.

The examiner respectfully disagrees. The examiner first notes that claim 1 recites in part, “one or more repeating fields” and “generating an ordinal value for each instance of the repeating fields”, and claim 4 recites in part, “at least one repeating group of one or more fields” and “generating a group ordinal value for each instance of the repeating group of fields”. Therefore, the examiner notes that claim 4 only requires that there be one repeating field and that there be one repeating group consisting of that one field. Therefore, the repeating field is not only a field but also constitutes a group of one field. This analogy is similar to a data set containing one element. The element can be interpreted as both a single element and as a set of one element. Therefore, in the present application, the examiner asserts that the *DXX_SEQNO* of Chau (Chau; par [0150]) constitutes both a field ordinal and a group ordinal, since the group is the one field.

2. The Combination of *Chau* in View of *Mihai* Does not Render Claim 6 Obvious

The appellant argues that claim 6 is believed to be allowable for reasons provided for claim 1. The examiner respectfully disagrees for reasons explained above with respect to claim 1 as well.

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(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

KP

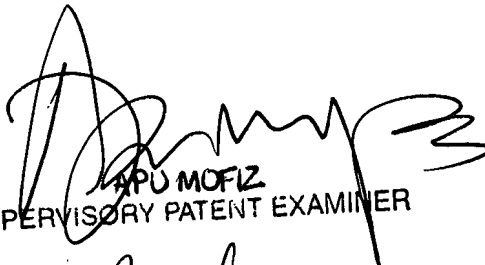
October 23, 2007

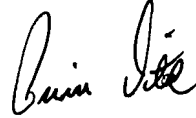
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